## What is claimed is:

1. A water control system for controlling the temperature and flow to an end user comprising:
    - A manifold assembly having a hot water inlet, a cold water inlet, a mixed water output to one or more outlets, a mixing device, and a temperature sensor;
    - A modular control device having a user interface, control electronics, power source, and conducting wire to control the operation of said manifold assembly.
2. A manifold assembly according to claim 1 wherein said hot water inlet is a high flow proportional solenoid valve responsive to a control signal generated by said control electronics.
3. A manifold assembly according to claim 1 wherein said cold water inlet is a high flow proportional solenoid valve responsive to a control signal generated by said control electronics.
4. A manifold assembly according to claim 1 wherein said mixed output would be directed to either an outlet, or one or more additional solenoid valves to direct the flow of said mixed water output.
5. A manifold assembly according to claim 1 wherein said mixing device is selected from the group consisting of an in-line mixing fixture to disrupt the flow of water and cause turbulence, a passive agitator that moves with the flow of water, or a motor driven assembly.
6. A manifold assembly according to claim 1 wherein said temperature sensor is selected from the group consisting of a thermocouple, a thermistor, a resistance temperature detector (RTD), an integrated circuit temperature sensor, or a fluid-pressure transducer.
7. A modular control device according to claim 1 wherein said user interface comprises a series of buttons and displays.
8. A user interface according to claim 7 wherein said buttons are inputs to the control electronics for setting desired temperature, flow rate, locality of flow, timing, radio stations, preset temperatures into memory, maximum temperature allowed, or any other desired input to the control electronics.
9. A user interface according to claim 7 wherein said displays are used to display information to the user such as temperature set point, actual temperature, timing, radio stations, maximum temperature set point or any other desired output to the user and are selected from the group consisting of LED's or LCD's.

10. A modular control device according to claim 1 wherein said control electronics receive a desired temperature set point from said user interface and a temperature variable from said temperature sensor and produce variable excitation current control signals to both the hot inlet solenoid valve and the cold inlet solenoid valve.
11. Control electronics according to claim 10 wherein said excitation current signals are produced by either a microprocessor or an arrangement of electronic components.
12. Excitation current signals according to claim 11 are produced by one or more methods from the group consisting of Pulse Width Modulated output signals or current limiting electronics.
13. A modular control device according to claim 1 wherein said power source is selected from the group consisting of Alternating Current (AC), Alternating Current (AC) to Direct Current (DC) transformation, or Direct Current (DC) from a battery source.